

REMARKS

Summary

Claims 38, 41-54, and 56-59 were pending. In the present response, claim 38 has been amended. No claims have been added. Claims 1-37, 39-40 and 55 were previously cancelled. All amendments and claims are fully supported by the disclosure. No new matter has been added.

Accordingly, claims 38, 41-54, and 56-59 are pending and under consideration.

Examiner Interview

Applicant thanks the Examiner for the courtesies extended to Applicant's representative during a June 4, 2009, telephonic interview in which the outstanding rejections were discussed. Applicant's record of the substance of the interview is embodied in the remarks below.

Rejections Under 35 USC 103

Claims 38, 41-46, 48, 49, 54, and 56-58 were rejected under 35 USC 103(a) over US Patent No. 5,141,044 to Hying et al. (Hying) in view of US Patent No. 4,519,474 to Iseli et al. (Iseli). Applicant respectfully traverses the rejections in light of the amendments to the claims and the remarks below.

Independent claim 38 is directed to a roll-up door comprising a web-like closing element (see pg. 1-3 of specification for a discussion of doors of this type). Such doors are used where rapid opening of an entry is more desirable than an intrusion-proof closure of the entry. Doors of this type that include web-like or strip-like hanging elements composed of PVC may also include a counterweight device to facilitate the opening motion.

The flexibility of the doors requires the use of a stabilizing element on the lower edge of the strip-like (hanging) element, especially where the doors are to be opened

and closed rapidly. As Applicants disclose in the specification, conventional roll-up doors use a rod fastened to the lower edge of the hanging element to stabilize the lower edge and facilitate closing (pg. 3, lines 12-26 and pg. 4, lines 1-9). But this presents a danger to persons standing in the entry, who may be struck by the rod during closure. Other options such as filling a fold of the lower edge with sand do not offer adequate stabilization of the closing element (pg. 4-5).

However, the recitations of claim 38 provide a roll-up door that offers both safety and stability by providing a low restoring force when deformation occurs in a direction opposite to the closing position while providing a higher restoring force in a transverse direction (e.g. side impacts to the door; see generally specification pg. 7-9). The recited subject matter solves multiple problems associated with roll-up doors in a manner that has not previously been taught or suggested.

Claims 38, 41-46, 48, 49, 54, and 56-58

Claim 38 has been amended to recite, in part, “at least one flexible web-like closing element having at least a closed position” and “an elastically deformable stabilizing element coupled to at least one lower edge of the flexible web-like closing element, said stabilizing element having elastically deformable upper and lower contact surfaces and opposing lateral exterior elastically deformable contact surfaces, the elastically deformable upper contact surface being coupled to at least one lower edge of the flexible web-like closing element along an elastically deformable interface” Support for these amendments is found at least in Figure 1 and on pg. 1, lines 19-23; pg. 3, lines 12-17; pg. 4, lines 10-24 (all disclosing a flexible “strip-like” element); page 8, lines 6-22 (disclosing stabilizing elements composed at least partially of an elastomeric material and/or plastic); page 9, lines 25-26; page 10, lines 1-3; and page 15, lines 11-21.

First, Applicants disclose flexible hanging elements throughout the disclosure (“strip-like hanging element”). Next, the embodiment illustrated in Figure 1 shows

hanging element 10 coupled to stabilizing element 20 along a groove 22. Finally, Applicants further disclose in the written description that the stabilizing element 20 comprises an elastomeric material (pg. 15, lines 19-21) with a groove at its upper edge in which the lower edge of the hanging element 10 is accommodated (pg. 15, lines 11-13).

Hying and Iseli fail to teach or suggest all the features of amended claim 38. First, Hying merely provides a roll-up door coupled to a metal bar with an elastomeric bottom edge. The interface between the elastomeric edge and the roll-up door is the metal bar, which is not elastically deformable in any direction. Therefore, the mechanism taught by Hying lacks the elastically deformable interface of claim 38. In addition, the elastomeric edge taught by Hying is not a “stabilizing element” because it does not stabilize the closing element, does not include a leaf spring, and does not exert a first and second restoring force as recited in claim 38. If Hying teaches an element that stabilizes the roll-up door, it is the metal bar. However, the metal bar is not elastically deformable and does not contain an embedded leaf spring as recited by claim 38. Therefore, Hying fails to teach or suggest the elastically deformable interface and the elastomeric stabilizing element of claim 38. In addition, Hying does not address the issue of safety for persons and property who may be struck by the door as it descends; the metal bar of Hying’s door is rigid and could cause injury, especially in a rapidly closing door.

Next, Iseli teaches an elastic door edge sensor, but does not teach or suggest a flexible web-like closing element. The only suggestion of a flexible interface between the elastic door edge sensor and any surface to which it is mounted is provided in Figure 4 and col. 3, lines 27-33, describing a foam carrier 10 mounted on the collision edge of a driverless transport vehicle. Thus, the carrier is mounted to a rigid structure, not to a flexible web-like closing element of a roll-up door as required by claim 38.

Finally, the modification of Hying with the teachings of Iseli in the manner suggested on page 2 of the Office Action cannot render claim 38 obvious because it would change the principle of operation of the primary reference (see MPEP 2143.01). In operation, Hying's door comprises a metal bar with breakaway shafts that are held within tracks – an impact to the metal bar causes the breakaway shafts to be released from the metal door. The only manner in which Hying can be modified with the teachings of Iseli to produce “an elastically deformable upper contact surface coupled to at least one lower edge of the flexible web-like closing element along an elastically deformable interface” requires **removal** of the metal bar, which is disposed between the flexible curtain and the elastomeric bottom edge. Removing the bar would change the principle of operation of Hying because the bar is integral to the function of the breakaway mechanism. For this reason, the combination of Hying and Iseli cannot render amended claim 38 *prima facie* obvious.

For the above reasons, claim 38 is patentable over Hying and Iseli.

Claims 41-46, 48, 49, 54, and 56-58 are dependent, directly or indirectly, on claim 38 and thus are patentable over Hying and Iseli for at least the same reasons discussed above with respect to claim 38.

Applicants take this opportunity to note that the remaining references cited in the Office Action, U.S. Pat. No. 5,399,851 to Strand and U.S. Patent No. 3,292,685 to Clark, cannot remedy the deficiencies of Hying and Iseli because they fail to teach or suggest the features discussed above.

For at least the above reasons, reconsideration of all pending claims is respectfully requested.

Conclusion

In view of the foregoing, Applicant respectfully submits that all the claims are in condition for allowance, and early issuance of the Notice of Allowance is respectfully requested.

If the Examiner has any questions, he is invited to contact the undersigned at (503) 796-2844. Please charge any shortages and credit any overages to Deposit Account No. 500393.

Respectfully submitted,
SCHWABE, WILLIAMSON & WYATT, P.C.

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/Steven J. Prewitt/
Steven J. Prewitt
Registration No. 45,023

Pacwest Center, Suite 1900
1211 SW Fifth Avenue
Portland, Oregon 97204
Telephone: 503-222-9981